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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/644,741 | 08/21/2003 | Sang Woon Suh | 1740-000055/US | 6208 |

30593 7590 04/16/2007
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| EXAMINER |
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LAMB, CHRISTOPHER RAY

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| ART UNIT | PAPER NUMBER |
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2627

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/16/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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|------------------------------|---------------------------------|----------------------------|--|
| Office Action Summary | Application No. 10/644,741 | Applicant(s) SUH ET AL. | |
| | Examiner Christopher R. Lamb | Art Unit 2627 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the Republic of Korea on August 22nd, 2002. It is noted, however, that applicant has not filed a certified copy of the 10-2002-0049638 application as required by 35 U.S.C. 119(b).

The Examiner notes Applicant, in their remarks filed February 5th, 2007, have indicated their intent to file a certified copy, but have not yet filed it.

Drawings

2. The drawings were received on February 5th, 2007. These drawings are acceptable.

Claim Objections

3. Claim 1, 3, 5, and 15 objected to because of the following informalities: in these claims "the at least one of the address unit number and the user data" should be simply "at least one of the address unit number and the user data." The first "the" is unnecessary. (Similarly, in claim 15, "recording the at least one" should be "at least one"). Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 5, 6, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (US 6,289,102).

Regarding claim 1:

Ueda discloses a high-density recording medium (abstract: it is high density as described in column 1), comprising:

at least one playback allowance code (abstract: "key information"), which is adapted to determine region-based allowance of playback of data recorded on the recording medium (column 2, lines 25-40),

at least one of an address unit number and user data recorded on the recording medium (abstract),

wherein at least one of the address unit number and the user data is scrambled by being logically combined with said at least one playback allowance code (abstract: e.g., column 8, lines 1-15).

Regarding claim 3:

In Ueda said at least one playback allowance code comprises a code for a playback-allowed region (column 2, lines 25-40), the code for the playback-allowed

Art Unit: 2627

region being combined with at least one of the address unit number and the user data in a scrambled state (abstract: e.g., column 8, lines 1-15).

Regarding claim 5:

In Ueda said at least one playback allowance code is used to de-scramble at least one of the address unit number and the user data when the recording medium is played back (abstract: e.g., column 7, lines 55-65).

Regarding claim 6:

In Ueda said at least one playback allowance code is recorded in a part of user control data recorded on the recording medium.(it is in the lead-in area: abstract).

Regarding claim 14:

Ueda discloses a method of recording data on a high-density recording medium, comprising the steps of:

(A) selecting a region-based playback allowance code in order to restrict a playback, the region-based playback allowance code being unique to at least one region (selecting a code: column 7, lines 40-65; that a code may be region-based: column 2, lines 25-40); and

(B) scrambling at least one of a user data and an address unit based on the selected region-based playback allowance code (column 7, lines 40-55).

Regarding claim 15:

The method of Ueda further comprises the steps of:

Art Unit: 2627

(C) recording at least one of the scrambled user data and the address unit with the selected region-based playback allowance code on the high-density recording medium (column 7, lines 40-65).

Regarding claim 16:

In Ueda the selected region-based playback allowance code is one of at least two codes (e.g., Fig. 3: Ueda has multiple codes and the number indicates which one is used).

6. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda (these claims have been listed separately because a different embodiment of Ueda has been used to reject them, compared to the claims above).

These rejections have been repeated from the previous Office Action.

Regarding claim 7:

A method for reproducing data of a high-density recording medium, comprising the steps of:

(A) identifying region identification information stored in a recording/reproducing apparatus, and detecting a region-based playback allowance code, corresponding to the identified region identification information, from user control data recorded on the recording medium (column 32: step S1400 – in this embodiment the disk key is a region-based playback allowance code. The disc key is region-based because it itself can only be decrypted if the apparatus possesses the correct master code, which is stored in the apparatus, and thus can be restricted by region, as in column 2, lines 25-40); and

(B) de-scrambling a scrambled address unit number read from the optical disc, based on the detected playback allowance code, and (column 32: step S1402 – the disk key is used to decrypt the encrypted sector header, which inherently includes address information)

performing a data reproducing operation by referring to the de-scrambled address unit number (column 33, lines 20-25).

Regarding claim 8:

In Ueda the region identification information is intrinsic region identification information for a region where the recording/reproducing apparatus is to be sold and used (again, because the disk key is decoded using a master key stored in the apparatus, it is intrinsically restricted to the region where the apparatus is sold).

Regarding claim 9:

In Ueda the step (B) comprises the step of logically combining the detected playback allowance code with the scrambled address unit number read from the recording medium, thereby de-scrambling the scrambled address unit number into an original address unit number (column 32: step S1402).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Reed.

Regarding claim 4:

Ueda discloses a high-density recording medium as discussed above.

Ueda does not disclose "at least one false playback allowance code for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code."

Reed discloses recording decoy keys on an optical disc (paragraph 74).

It would have been obvious to one of ordinary skill in the art to include in Ueda at least one false playback allowance code for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (in other words, a decoy code).

The motivation would have been to improve the security of the disc.

Regarding claim 17:

Ueda discloses a method of recording data as discussed above in the rejection of similar claims 14-16. Ueda does not disclose recording "non region-based playback allowance codes" on the disc. However, this is taught by Reed (decoy keys being non region-based playback allowance codes) as discussed above.

Response to Arguments

9. Applicant's arguments filed February 5th, 2007 have been fully considered but they are not persuasive.

Applicant groups the arguments by claims; the Examiner will do likewise.

Regarding claims 1, 3, 5, and 6:

The Applicant focuses on the term "key information." This term was used in the abstract of Ueda; in some of the claim rejections, the Examiner cited this abstract.

Applicant argues that the key information of Ueda is an indicator indicating the scrambling mechanism, and thus (A) is not logically combined with an address unit number or user data, and (B) is not region-specific.

Regarding first argument (A):

Ueda does disclose logically combining the key information with an address unit number of user data. In fact, Ueda discloses the exact same method of logically combining the key information as Applicant discloses.

See, for example, column 8, lines 25-30. "As a method for generating the random number sequence...from the supplied initial value...a method of employing a shift register...is known."

Compare Applicant's specification, page 8: "the optical disc apparatus randomizes the detected region key through the linear feedback shift register..."

Since there appears to be no difference, at least as far as the logical combination is concerned, between Ueda's disclosed invention and Applicant's disclosed invention, this argument was not found to be persuasive.

Regarding second argument (B):

Ueda discloses (column 2, lines 25-40), that one problem that Ueda's invention solves is that of restricting reproduction to only a specific country where the sale thereof

Art Unit: 2627

is permitted. In order to solve this stated problem, the key information of Ueda must be region specific.

The Applicant appears to be arguing this point because Ueda does not specifically note throughout the disclosure that an individual embodiment of the invention is region-specific. This is because the method of Ueda is applicable to more than just region-specific playback restriction: it can be used, for example, to prevent reproduction of an industrial disc, or illegal copying. However, Ueda lists, in the beginning, a number of situations that key information would be called for, and region-based playback is among them. Therefore, since Ueda discloses the use of a playback allowance code, and discloses that playback allowance codes may be region-specific, any of the embodiments of Ueda could constitute a region-specific playback allowance code.

Regarding claims 14-16:

Applicant repeats the argument that Ueda's code is not region-specific; this has already been discussed.

Regarding claims 7-9:

Applicant argues only that Ueda's keys are not region-specific.

Regarding the rejection of claims 1 and 10-13 as anticipated by Yonemitsu:

This argument was found persuasive, and the rejection of claim 1 as anticipated by Yonemitsu has been withdrawn (claims 10-13 have been cancelled).

Regarding claims 4, 17, and 18:

Applicant has cancelled claim 18, and argued that claims 4 and 17 are allowable for the same reasons as earlier claims. Those reasons were again not found to be persuasive.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 6:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL 4/11/07


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